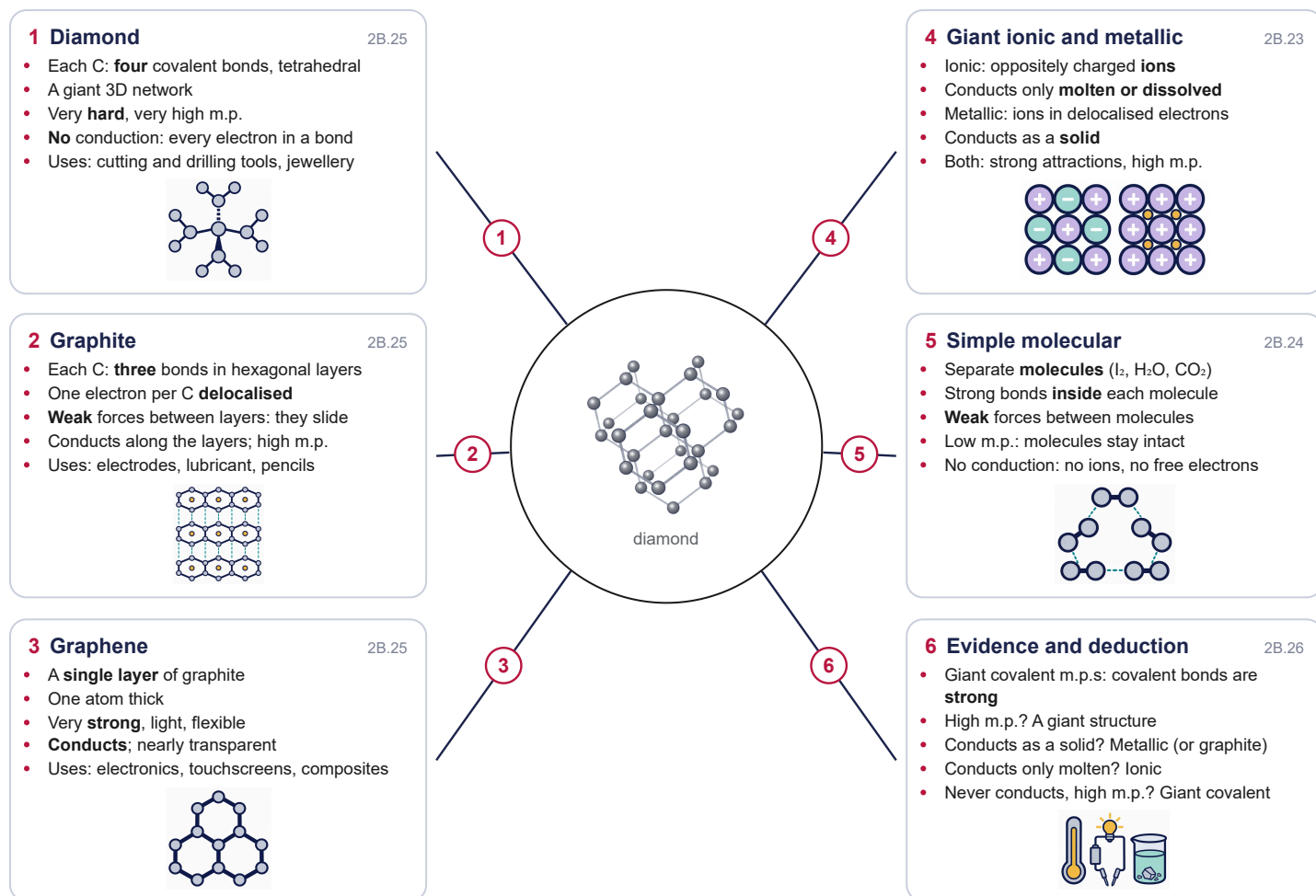


Structure Types Map

Edexcel A Level Chemistry · Topic 2 Bonding and Structure · Structure Types



The four kinds of solid m.p. in °C, rounded; *graphite and graphene conduct

Structure	Particles	Held by	m.p.	Solid conducts?	Example
giant ionic	ions	ionic bonds	801	no	NaCl
giant metallic	ions, electrons	metallic bonding	1085	yes	Cu
giant covalent	atoms	covalent bonds	1713	no*	SiO_2 , diamond
simple molecular	molecules	weak forces between	114	no	I_2

Worked examples

Which lattice?

- m.p. high or low
- Conducts solid or only molten
- Then name it

Why a high m.p.?

- A giant structure
- Strong attractions throughout
- Many to overcome

Why it conducts

- Metal, graphite: delocalised e^-
- Ionic: ions free when molten
- Molecular: nothing to move

The forces between simple molecules are the next section of Topic 2: Intermolecular Forces.

